Native Plants

Why They Are Needed
And How To Select Them for YOUR Garden

Adapted from a presentation developed by Master Gardener, Hester Burch, for the Score Four Students, Schools, Streams, and the Bay Program. Photos provided by Ms. Burch.

Native Plants

are plants that have grown in a region historically. They are adapted to the soil, climate, and water supply. They evolved in concert with the region's other plants, animals, and insects.

Why use native plants on your campus?

They help improve water quality because they:

- Need less fertilizer.
- Need less pesticides.
- And because…

…They have much bigger and deeper roots than grass and many non-native plants.

Their roots:

- **Improve soil porosity.**
- **Help prevent erosion.**
- **Absorb more runoff.**

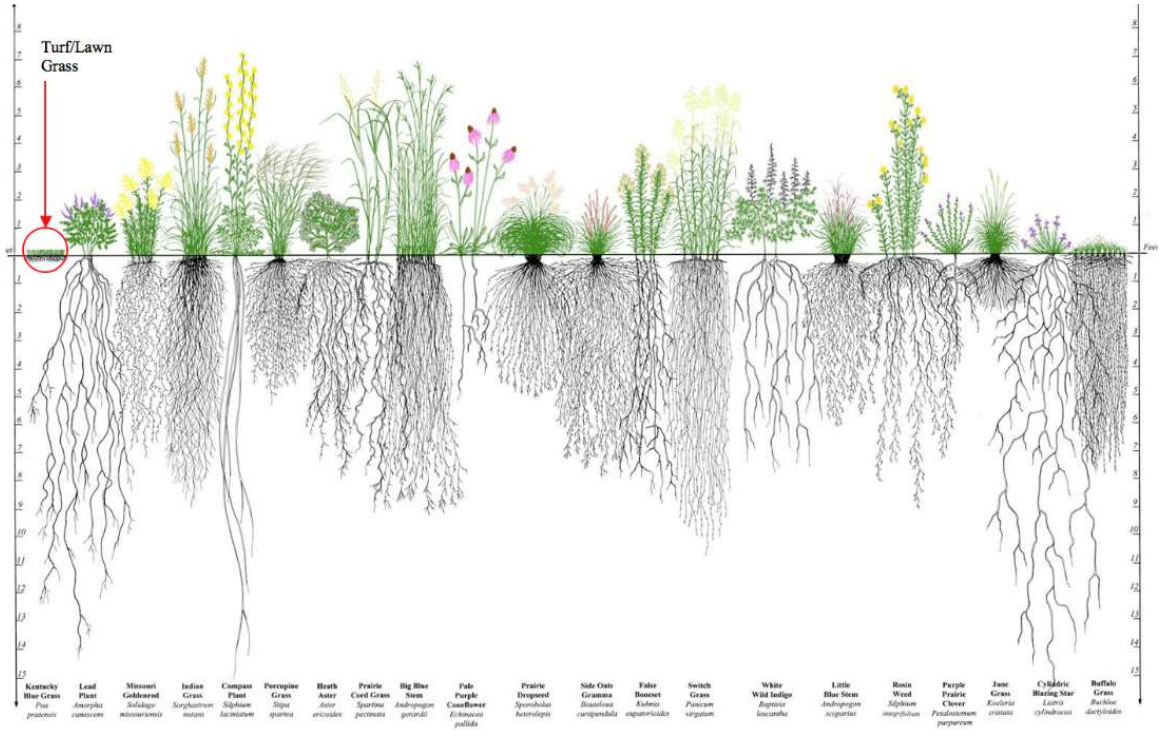
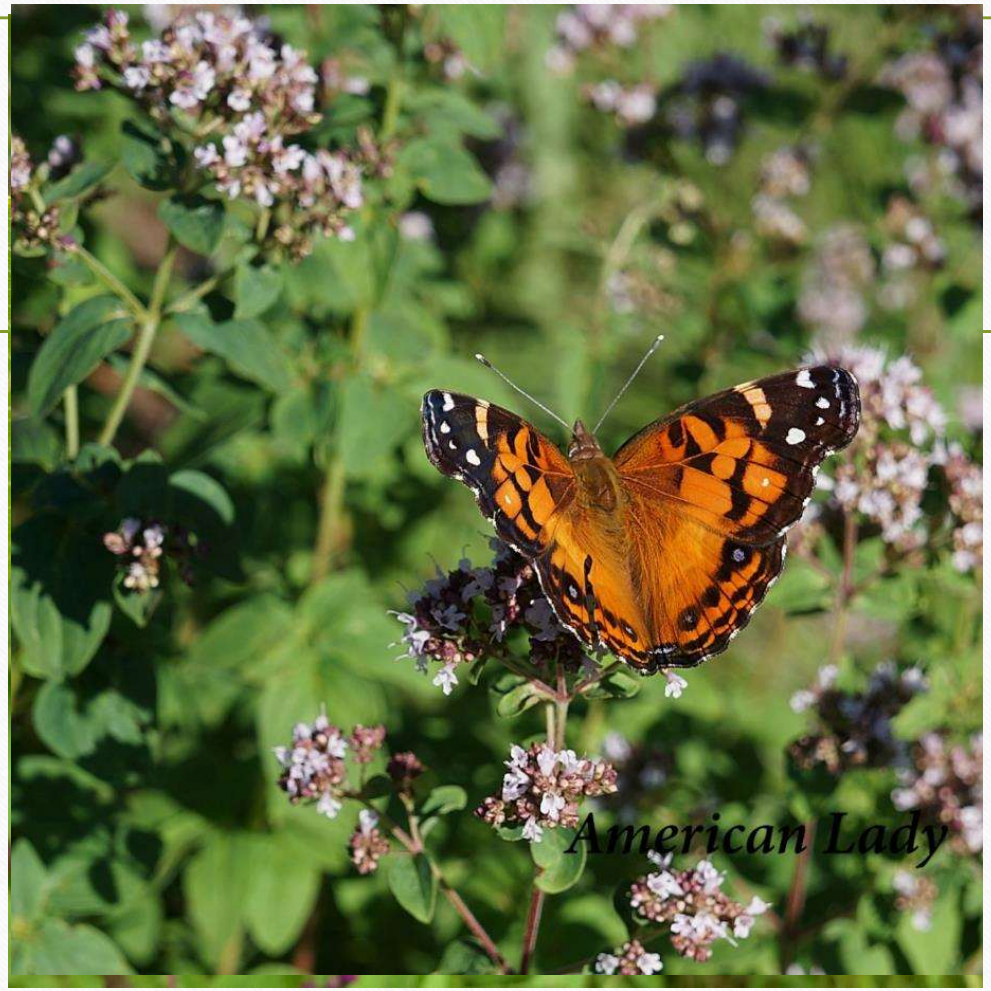


Diagram referenced from the "Conservation Research Institute"

Another reason for native plants
They benefit wildlife.

Insects depend on certain plants during different stages of their growth.



Host Plants: the specific plants used by an insect or other organisms.

Monarch caterpillars ONLY eat plants in the milkweed family.

90% of our insects are specialists, meaning their larvae (caterpillars) can only eat one or a few families of plants.

The Common Milkweed used to be found around farm fields and in meadows throughout the eastern half of the United States.

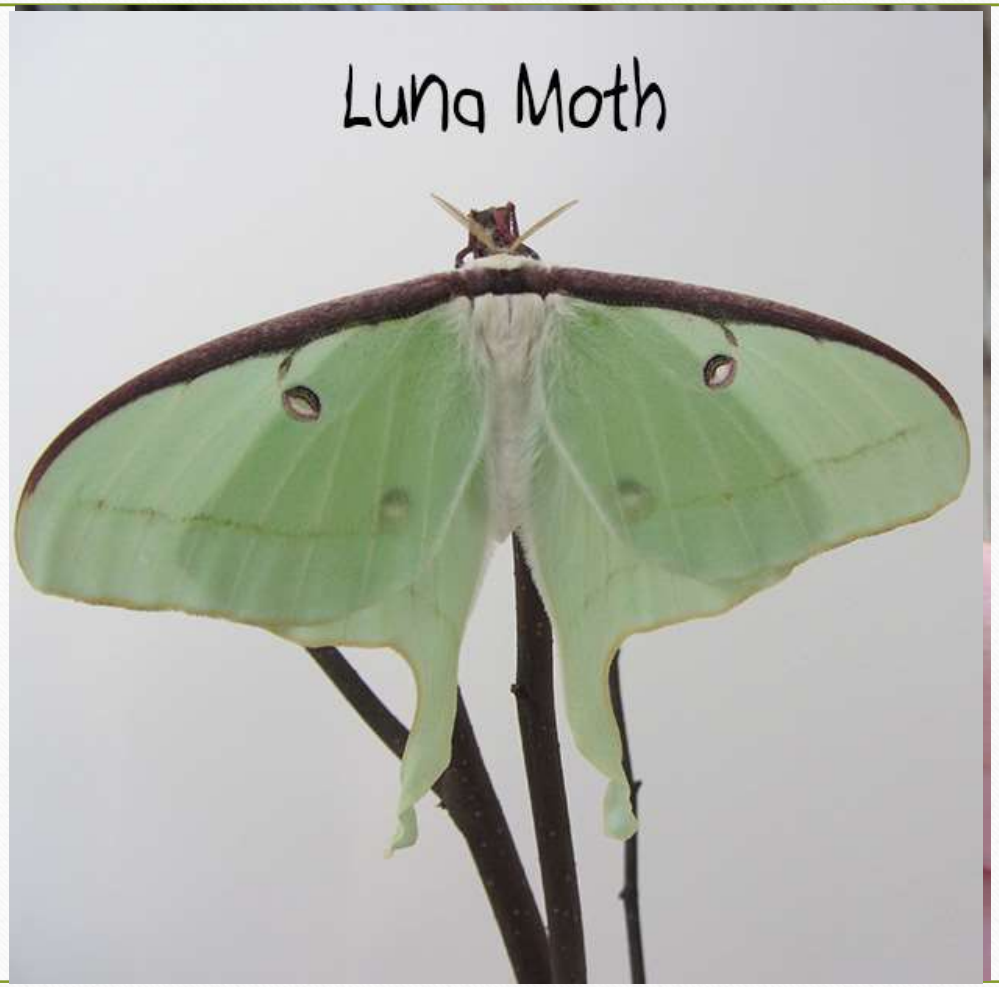
Today, there are far fewer milkweed plants, due to herbicide use and urbanization.


Monarch
Hester Burch

Sweetgum trees brighten fall days with their purple, yellow, and orange leaves.

Sweetgum leaves also feed this caterpillar. It might seem homely, but grows into a surprisingly beautiful moth.

The Luna Moth is a sight to behold.



The caterpillar and moth are food for predators, especially birds. Owls will eat the night-flying moths.

These short plants can cover the ground in purple *and* crowd out weeds!

They also provide nectar to butterflies and bees.

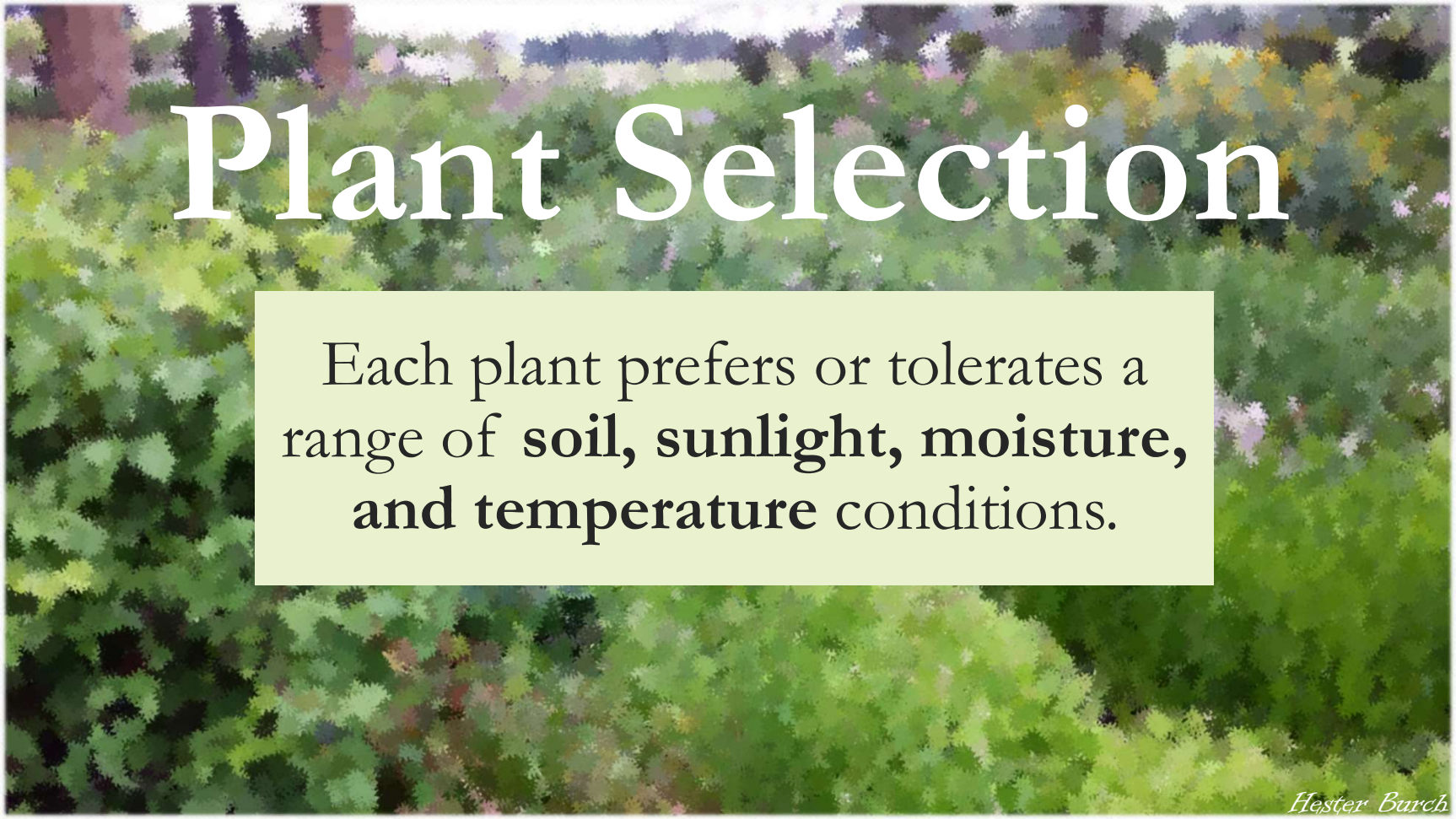
Plants Feed Insects That Feed

birds
reptiles
amphibians
mammals

Baby birds need insects!

Plant Selection

Each plant prefers or tolerates a range of **soil, sunlight, moisture, and temperature** conditions.



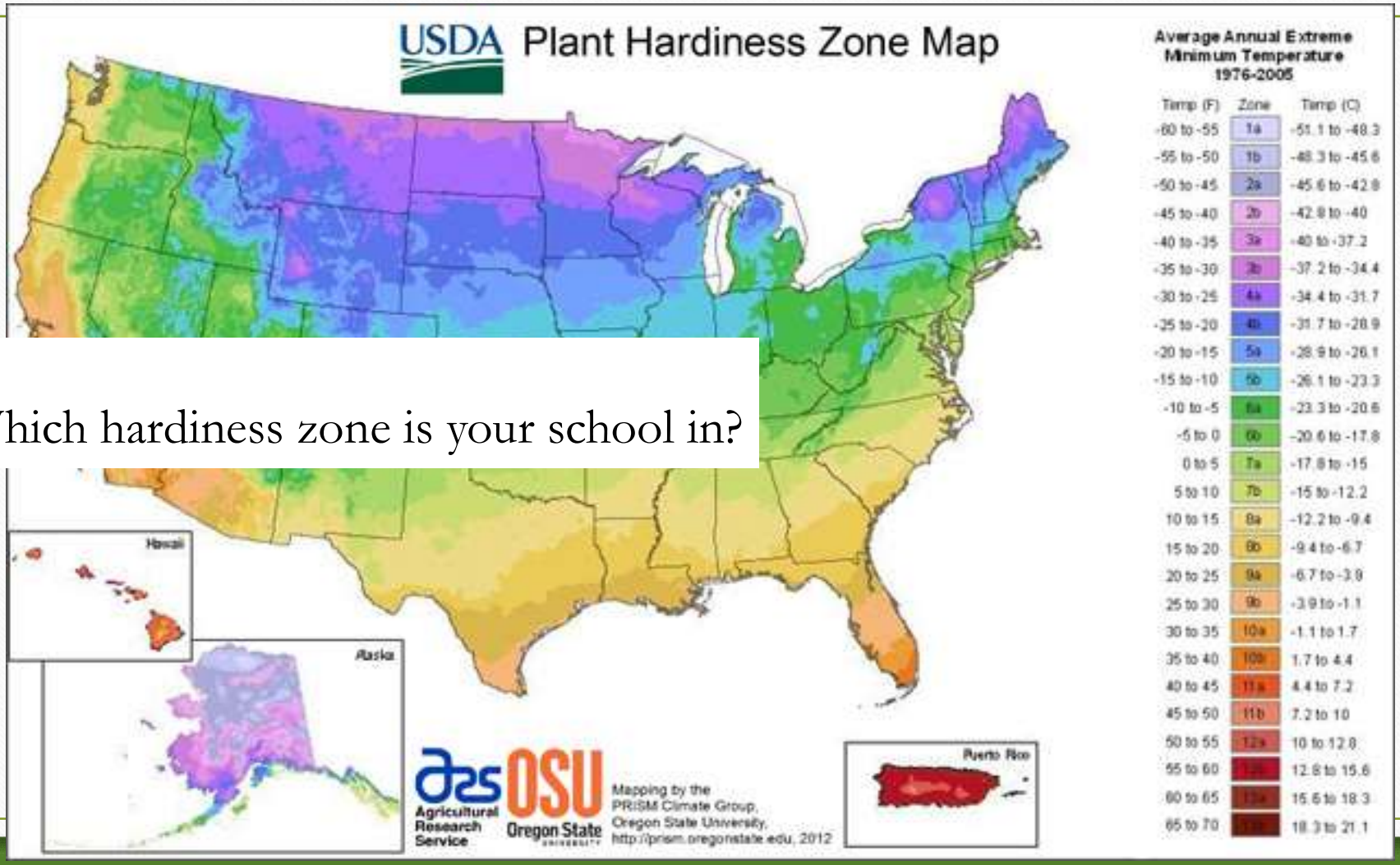
Selecting The Right Plants For Your Space

You will pick native plants that are adapted to:

- The **soil** at your school.
  - What kind of soil do you have?
- The **light** the reaches your chosen project site.
  - How much sun does your site get?
- The amount of **moisture** on your site.
  - Is your site dry, moist, or wet?

Figuring Out Which Plants Can Survive In Our Climate

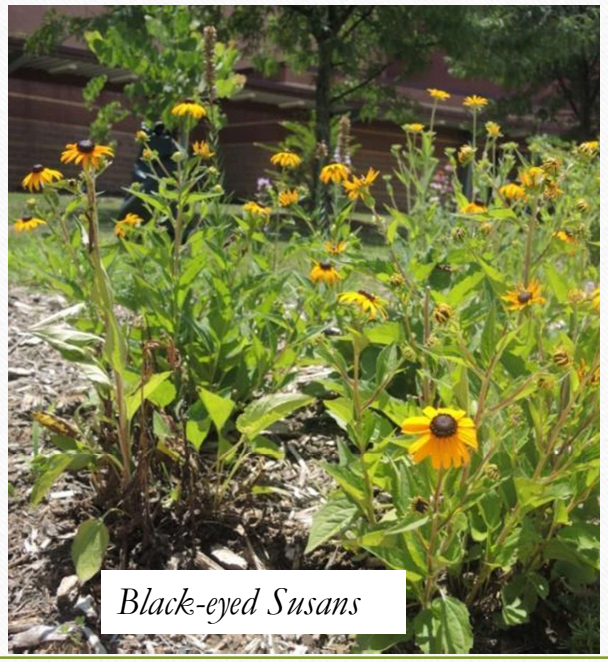
- Your plants need to be able to survive your area's hottest and coldest temperatures.
- This is called a plant's "hardiness." Plant books (and the internet) give information on a plant's hardiness.
- Maps of hardiness zones show where plants of certain hardinesses can live.



Which hardiness zone is your school in?

Plants Selection:
Other Things To Consider

- Select plants based on your project **goals**.
- Select plants that fruit or **bloom at different times** to enjoy year-round beauty.



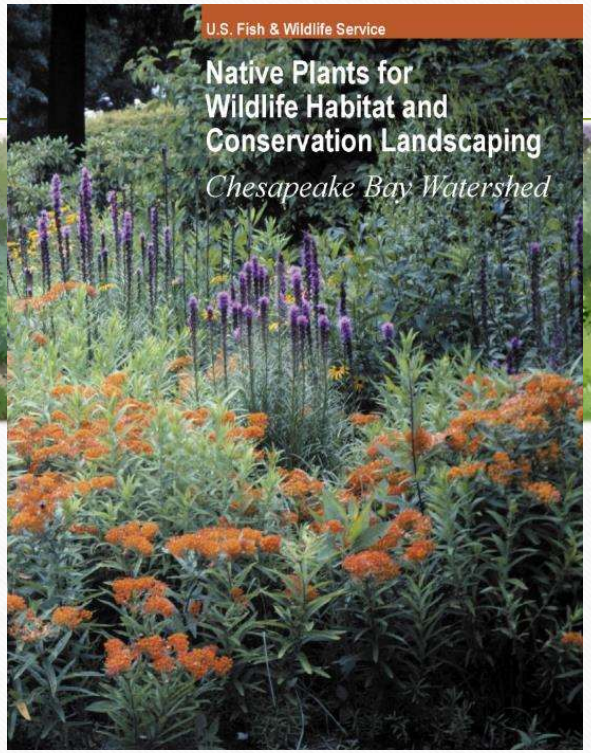
Black-eyed Susans

- Consider how much **maintenance** the plants will need.
- Think about how the plants will **fit and look in your space.**

Which of these were your class goals?

- Reduce stormwater runoff and improve water quality
- Attract butterflies
- Provide bird habitat
- Grow food
- Provide outdoor an learning space

This plant guide can be used for choosing plants.



The guide is divided into sections according to plant types, as will be shown on the next slides.

www.nativeplantcenter.net

Types of Plants To Consider:
Ferns

Example from the plant guide:

Onoclea sensibilis, Sensitive Fern

- Height: 1 – 3.5’
- Light:
- Moisture: M W
- Soil type: C L S

Grasses

Example: *Panicum virgatum*, Switchgrass

- Height:3 – 6’
- Light: ☼ ◑
- Moisture: D M W
- Soil pH: 4.5 - 8
- Soil type: C L S

Herbaceous Plants

Example: *Asclepias tuberosa*, Butterfly Milkweed

- Height: 1 – 3’
- Light: ☼ ◑
- Moisture: D M
- Soil pH: 4.8 – 6.8
- Soil type: L S
- Wildlife: Butterflies, insects

Shrubs

Example: *Vaccinium angustifolium,* Lowbush Blueberry

- Height: 1 – 2’
- Light:
- Moisture: D M
- Soil pH: 4 – 6
- Soil type: C L S
- Flowers: May – Jun, White
- Fruit: Jul – Aug, blue to black, berry
- Fall color: Red
- Wildlife: Butterflies, Birds, Insects

Trees

Example: *Cercis canadensis,* Eastern Redbud

- Height: 20 – 35’
- Spread: 20 – 35’
- Light:
- Moisture: D M
- Soil pH: 4.5 – 7.5
- Soil type: L S
- Flowers: Apr - May, Pink to lavender
- Fruit: Jul – Dec, black, pod
- Fall color: Golden yellow
- Wildlife: Butterflies, Birds

More Examples of Native Garden Plants

Blue False Indigo beautiful and useful to our native bees and some native butterflies and moths.

The False Indigo looks like a bush after the blossoms die.

Monarch butterflies lay their eggs on the orange plant. Many butterflies drink the nectar from its blossoms.

Joe-Pye Weed is a tall wildflower loved by many- birds, butterflies, bees, and people too.

Indian Wood Oats

Add year round interest to your garden. Seeds provide food to small mammals and some birds.

Goldenrods are the host plants for the larva of over 100 species of butterflies and moths!

New York Ironweed's tall, striking purple flowers and seeds bring insects and birds to gardens in moist areas

And they make a great backdrop for shorter plants.

Adam's Needle (*Yucca filamentosa*) resembles a spiky cactus.

It likes sandy and rocky dry soils.

The blossoms provide nectar to hummingbirds!

Have fun picking plants for your Student Stormwater Action Project!